

Creating a Voice-Activated Computer System: A Partnership between Technology and Long-Term Care

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The last two years has seen an exciting research and development initiative in New York State involving four not-for-profit long term care facilities, the New York State Department of Health's Bureau of Health Resources Development, a private research foundation (the Foundation for Long Term Care), and a private software developer specializing in nursing home systems (P&NP) Computer Services, Inc.). The desired outcome: to reduce clinician time spent on mandated resident documentation while facilitating access to improved resident information to assist in the delivery of quality health care. The presentation will provide a view of the results of this on-going initiative which involves the development of a network based resident care management system which responds to clinical staff needs and oversight responsibilities, provides resident data which assists staff in the delivery of quality health care, and remains flexible enough to be reactive to changing federal and state reporting mandates as well as idiosyncratic facility informational demands. The long term care facilities' administrative and clinical staffs worked with P&NP Computer Systems to develop PC based software using an open ended architecture allowing for individual facility customization. Use of PC's allowed inexpensive access to technological improvements which lead to concomitant enhancements of the software. By 1991, the facilities involved were able to take advantage of state-of-the-art alternative input capabilities offered for PC's such as voice input rather than keyboard input as well as sophisticated graphics output which provides the ability to view resident photographs or related documents on the screen.

Theater Presentation Highlights:

A. Voice Activated Computerized Care Planning and Progress Note system

(1.) Multi-Disciplinary Care Plans

The evolution of a care planning system completely configurable at all levels which outputs a column or paragraph type care plan. Care Plan Data Elements can be selected by keyboard or mouse and can be added to and/or emended using voice or keyboard input. Projection of the computer screen contents on a large screen to enable easy viewing by the audience and overview handouts underscore development process.

(2.) Progress Notes

The computerized Progress Note which maintains resident information in a central location available to all clinicians while reducing the redundancy of clerical transcription processes has proved extremely amenable to voice input technology. Grant facilities' clinical disciplines have created voice macros which can produce a basic textual note easily edited by voice or keyboard input.

B. Using State-of-the-Art Technology to Improve Resident Data Capture

A discussion/demonstration of the developed system enhancements including voice input memo fields, enhanced graphic output, resident profile screens, facility specific face sheets, "selectable" diagnosis database, "selectable" drug database, system reporting, and others.